

Third Edition, January 2007

### 1. Overview

UPort is the brand name of MOXA's USB-to-serial product line, which provides a wide range of products and solutions to extend Windows COM ports using the PC's USB port. Important features of UPort products include support for hi-speed (480 Mbps) USB 2.0, Moxa CPU, Moxa UART, the ability to assign COM port numbers, magnet accessories, and mini female DB9 to terminal block. These features make the UPort products easy to use and maintain.

The UPort 1200/1400/1600 line of USB-to-serial hubs includes the following models:

| • | UPort 1250    | 2-port RS-232/422/485 USB-to-serial hub                         |
|---|---------------|---|
| • | UPort 1250I   | 2-port RS-232/422/485 USB-to-serial hub w/ isolation protection |
| • | UPort 1410    | 4-port RS-232 USB-to-serial hub                                 |
| • | UPort 1450    | 4-port RS-232/422/485 USB-to-serial hub                         |
| • | UPort 1450I   | 4-port RS-232/422/485 USB-to-serial hub w/ isolation protection |
| • | UPort 1610-8  | 8-port RS-232 USB-to-serial hub                                 |
| • | UPort 1650-8  | 8-port RS-232/422/485 USB-to-serial hub                         |
| • | UPort 1610-16 | 16-port RS-232 USB-to-serial hub                                |
| • | UPort 1650-16 | 16-port RS-232/422/485 USB-to-serial hub                        |
|   |               |   |

Before connecting the UPort USB-to-serial hubs to your computer's USB port, we recommend installing the UPort driver first. To do this, follow the installation procedure described in Section 3.

The installation procedure described in Section 3 was done on a PC running Windows 2000 (x86). Windows XP and 2003 (32-bit and 64-bit) driver installations are the same. UPort can be connected to any upstream type A USB port that is on the PC host or on an upstream hub. UPort is hot pluggable, and therefore there is no need to power down your computer prior to installation.

After installing the driver, connect the UPort to an upstream host or hub. The **Found New Hardware** wizard will locate the appropriate drivers automatically. Once the drivers are found, various windows will pop up as UPort's serial port is being installed.

When the **Found New Hardware wizard** finishes installing UPort, use the operating system's Device Manager to check and/or modify the port settings. The new COM port will be listed under Ports (COM & LPT).

# 2. Package Checklist

Before installing the UPort, verify that the package contains the following items:

- UPort 1200/1400/1600 USB-to-serial hub
- 1 USB cable
- Document and Software CD-ROM
- UPort 1200/1400/1600 Quick Installation Guide
- Power adaptor (for UPort 1250I/1450I/1600-8) or power cord (for UPort 1600-16)

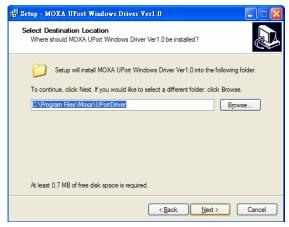
Notify your sales representative if any of the above items are missing or damaged.

### 3. Installing the UPort 1200/1400/1600 Driver

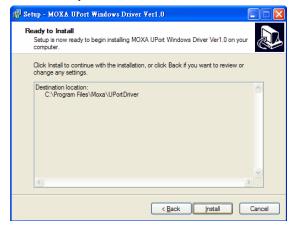
Run the Setup program located on the UPort 1200/1400/1600
 Document and Software CD-ROM. Click Next to start installing the driver.



2. Click **Next** to install the driver in the indicated folder.



3. Click **Install** to proceed with the installation.



P/N:1802014000200

4. The next window that opens cautions you that although this software has not passed Windows logo testing, this driver has already been tested and shown that it can support the Windows OS. Click Continue Anyway to proceed. Then, click Finish to complete the driver installation.



## 4. Installing the UPort 1200/1400/1600 Hardware

### WARNING

- 1. This unit is not meant to be sold to consumers. It will only be shipped to manufacturers or factories.
- The DC source should come from a class 2 external adaptor or a 12 to 48 VDC Safety Extra-Low Voltage (SELV) limited power source (LPS) using a transfer device.
- 3. This unit should be installed or set up by a qualified service person.
- Refer to the table below to see if external power is needed for your UPort. If applicable, connect the UPort to an external power source.

|                   | UPort<br>1250 | UPort<br>1250I | UPort<br>1410 | UPort<br>1450 |   |   | UPort<br>1600-16 |
|-------------------|---------------|----------------|---------------|---------------|---|---|------------------|
| USB-<br>powered   | √             | ×              | √             | √             | × | × | ×                |
| external<br>power | ×             | <b>√</b>       | √             | <b>√</b>      | √ | √ | √                |

- 2. Connect the UPort to the PC using the USB cable.
- After powering on your PC, Windows 2000/XP/2003 will automatically detect the UPort.

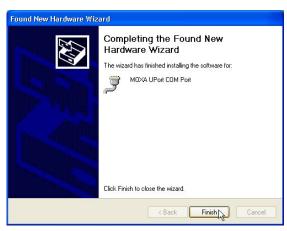
4. Click **Next** to start the installation.



5. Select Install the software automatically (Recommended).



6. The next window that opens cautions you that although this software has not passed Windows logo testing, this driver has already been tested and shown that it can support Windows OS. Click Continue Anyway to proceed. Then, click Finish to complete the driver installation.



7. Repeat steps 4 to 6 until all COM ports are installed.

### 5. Serial Port Pin Assignments

The serial ports on the UPort 1200/1400/1600 have DB9 male connectors. Refer to the following table for the RS-232 and RS-422/485 pin assignments.

|   | 1 | 5 |   |
|---|---|---|---|
| 0 |   |   | С |
|   | 6 | 9 |   |

DB9 Male

| Pin | RS-232 | RS-422/<br>4-wire RS-485 | 2-wire<br>RS-485 |
|-----|--------|--------------------------|------------------|
| 1   | DCD    | TxD-(A)                  |                  |
| 2   | RxD    | TxD+(B)                  |                  |
| 3   | TxD    | RxD+(B)                  | Data+(B)         |
| 4   | DTR    | RxD-(A)                  | Data-(A)         |
| 5   | GND    | GND                      | GND              |
| 6   | DSR    |                          |                  |
| 7   | RTS    |                          |                  |
| 8   | CTS    |                          |                  |
|     |        |                          |                  |

### **Power Input Specifications**

UPort 1250: 5 VDC (bus power), 360 mA

UPort 1250I: 12 to 48 VDC, 200 mA (max. in 12 VDC) UPort 1410/1450: 12 to 48 VDC (external) or 5 VDC (bus power),

260 mA (max. in 12 VDC)

UPort 1450I: 12 to 48 VDC, 360 mA (max. in 12 VDC)
UPort 1600-8: 12 to 48 VDC, 580 mA (max. in 12 VDC)
UPort 1600-16: 100 to 240 VAC, 220 mA (max. in 100 VAC)

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